

## REMARKS

The Office Action dated July 28, 2000 has been carefully reviewed. Claims 1-3, 5-11, 13-18, and 20 are pending in this patent application. Reconsideration of the patent application is respectfully requested in view of the following remarks.

### 35 U.S.C. § 103(a) Rejection of Claims 1-3, 5-11, 13-18 and 20 (Burton)

Claims 1-3, 5-11, 13-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Burton (U.S. Patent No. 5,769,596). Specifically the Examiner states the following on page 3, lines 1-3, of the office action:

It would have been obvious to use conventional hydraulic actuators in lieu of the electric actuator in Burton in view of the fact that Burton replaces conventional hydraulic actuators with an electrical actuator. See Burton, column 4, lines 18-27.

The Examiner further states the following on page 3, lines 13 and 14, of the office action:

In Burton 35 and 21 are synonymous with applicants' rear box and center box, respectively.

### Discussion Re: Patentability of Claim 1

Claim 1 reads as follows:

1. A method of verifying proper coupling of an implement assembly to a lift arm assembly by an operator who is located in a cab of a work machine, with (i) the work machine including the implement assembly and the lift arm assembly, (ii) the implement assembly including a hinge plate, (iii) the hinge plate having a first coupling aperture extending therethrough, (iv) the lift arm assembly having a lift arm and a cylinder, and (v) the cylinder being secured to the lift arm, comprising the steps of:

**providing an implement coupler having (i) a first outside support plate, (ii) a second outside support plate spaced apart from the first outside support plate,**

(iii) a first inside support plate interposed the first and second outside support plates, (iv) a second inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, and (vi) a rear box section interposed the first and second outside support plates;

positioning the cylinder within the rear box section;

advancing a hydraulic fluid into the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin extends through the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab whereby proper coupling of the implement assembly to the lift arm assembly is verified by the operator without having to exit the cab. (Emphasis added.)

Claim 1 includes (A) providing an implement coupler having (i) a first outside support plate, (ii) a second outside support plate spaced apart from the first outside support plate, (iii) a first inside support plate interposed the first and second outside support plates, (iv) a second inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, and (vi) a rear box section interposed the first and second outside support plates and (B) positioning the cylinder within the rear box section.

Applicants respectfully submit that the Examiner's assertion that element 21 of Burton is synonymous with applicants' center box section is incorrect. Applicants respectfully point out that, with respect to Applicants' "center box section" the following was stated in the specification on page 30, lines 20-31:

It should be appreciated that right outside implement pin bore 492, right inside implement pin bore 494, left inside implement pin bore 496, and left outside implement pin bore 498 are linearly aligned such that an right implement pin 500 can be inserted through right outside implement pin bore 492, through right inside implement pin bore 494, **and into center box section 468** whereas left implement pin 501 can be inserted through left outside implement pin bore 498, through left inside implement pin bore 496, **and into center box section 468.** (Emphasis added.)

Applicants understand that one may not read a limitation into a claim from the written description, but one may look to the written description to define a term already in a claim, for a claim must be read in view of the specification of which it is a part. *Renishaw PLC v. Marposs Societa' Per zioni*, 158 F.3d 1243, 1248, 48 U.S.P.Q. 2d 1117, 1120 (Fed. Cir. 1998). As indicated above, claim 1 already recites the term "center box section", as such the specification can be utilized to help define what is meant by the term "center box section". As recited in the passage set forth above, right implement pin 500 and left implement pin 501 can be inserted into center box section 468. As such, Applicants respectfully submit that the term "center box section" recited in claim 1 must mean a structure which defines a container having a void therein in which the aforementioned implement pins can be inserted into.

As previously mentioned, the Examiner argues that Burton's element 21 is synonymous with the Applicants' center box section, however, in column 2, lines 38-39, of Burton's disclosure, element 21 is described as being a bar. In particular, column 2, lines 38-39, of Barton reads as follows:

The four brackets are rigidly connected near their upper ends by a **laterally extending bar 21** . . . (Emphasis added.)

Burton is devoid of any discussion relating to bar 21 defining a container having a void therein in which implement pins can be inserted into. Furthermore, Webster's II New Riverside Dictionary defines the word "bar" as:

**bar** (bär) n. 1. A rather long, rigid piece of **solid material** used esp. as a fastener or support. 2. A **solid block** of a substance <a bar of soap> (Emphasis added.) (See Webster's II New Riverside Dictionary Revised Edition, Copyright 1996, p. 55, attached hereto as Appendix A.)

Thus, in the absence of evidence to the contrary, Burton's bar 21 can not be construed as having a void therein in which implement pins can be inserted into since Burton's bar 21 is a solid block of material. Therefore, Applicants respectfully submit that bar 21 of Burton is **not** synonymous with the Applicants' center box section.

In light of the above discussion, Applicants maintain that Burton is devoid of any discussion pertaining to Applicants' center box section and thus can not be properly relied upon to establish a prima facie case of obviousness. Accordingly, Applicants respectfully request that the subject rejection be withdrawn.

#### Discussion Re: Patentability of Claims 2, 3, 5, and 6

Each of claims 2, 3, 5, and 6 include claim 1 as a base claim. As a result, each of claims 2, 3, 5, and 6 are believed to be allowable for the reasons hereinbefore discussed with regard to claim 1. Moreover, each of claims 2, 3, 5, and 6 include additional novel and non-obvious limitations. As a result, Applicants respectfully request that the rejection of claims 2, 3, 5, and 6 be withdrawn.

Discussion Re: Patentability of Claim 7

Claim 7 reads as follows:

7. A method of verifying proper coupling of an implement assembly to a lift arm assembly by an operator who is located in a cab of a work machine, with (i) the work machine including the implement assembly and the lift arm assembly, and (ii) the implement assembly having a first coupling aperture, comprising the steps of:

providing an implement coupler having (i) a first outside support plate, (ii) a second outside support plate spaced apart from the first outside support plate, (iii) a first inside support plate interposed the first and second outside support plates, (iv) a second inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, and (vi) a rear box section interposed the first and second outside support plates;

positioning a cylinder within the rear box section;

advancing a hydraulic fluid into the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin is positioned within the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab whereby proper coupling of the implement assembly to the lift arm assembly is verified by the operator without having to exit the cab. (Emphasis added.)

Based upon the language recited in claim 7, the Examiner will appreciate that, like claim 1, the subject method includes providing an implement coupler having a center box section interposed the first and second inside support plates. Therefore, the discussion relating to claim 1 is pertinent to claim 7. Accordingly, Applicants respectfully request that the rejection of claim 7 be withdrawn.

Discussion Re: Patentability of Claims 8-11, 13 and 14

Each of claims 8-11, 13 and 14 include claim 7 as a base claim. As a result, each of claims 8-11, 13 and 14 are believed to be allowable for the reasons hereinbefore discussed with regard to claim 7. Moreover, each of claims 8-11, 13 and 14 include additional novel and non-obvious limitations. As a result, Applicants respectfully request that the rejection of claims 8-11, 13 and 14 be withdrawn.

Discussion Re: Patentability of Claim 15

Claim 15 reads as follows:

15. A work machine, comprising:  
a cab in which an operator may be located;  
an implement assembly having an implement and a hinge plate secured thereto, wherein said hinge plate has a first coupling aperture extending therethrough;  
a lift arm assembly having a lift arm;  
**an implement coupler having (i) a first outside support plate, (ii) a second outside support plate spaced apart from said first outside support plate, (iii) a first inside support plate interposed said first and second outside support plates, (iv) a second inside support plate spaced apart from said first inside support plate and interposed said first and second outside support plates, (v) a center box section interposed said first and second inside support plates, and (vi) a rear box section interposed said first and second outside support plates, said implement coupler being interposed and secured to said lift arm assembly and said implement assembly; and**  
**a cylinder positioned within said rear box section,**

wherein (i) said cylinder is operable to move a pin between a first pin position and a second pin position in response to advancement of a hydraulic fluid within said cylinder, (ii) said pin is spaced apart from said coupling aperture when said pin is located in said first pin position, (iii) said pin extends through said coupling aperture when said pin is located in said second pin position, (iv) said pin is positioned within a field of vision of said operator when (A) said pin is located in said second pin position, and (B) said operator is located within said cab. (Emphasis added.)

Based upon the language recited in claim 15 the Examiner will appreciate that, like claims 1 and 7, the subject matter claimed therein includes an implement coupler having a center box section interposed the first and second inside support plates. Therefore, the discussion relating to claims 1 and 7 is pertinent to claim 15. Accordingly, Applicants respectfully request that the rejection of claim 15 be withdrawn.

Discussion Re: Patentability of Claims 16-18 and 20

Each of claims 16-18 and 20 include claim 15 as a base claim. As a result, each of claims 16-18 and 20 are believed to be allowable for the reasons hereinbefore discussed with regard to claim 15. Moreover, each of claims 16-18 and 20 include additional novel and non-obvious limitations. As a result, Applicants respectfully request that the rejection of claims 16-18 and 20 be withdrawn.

**35 U.S.C. § 103(a) Rejection of Claims 1-3, 5-11, 13-18 and 20 (Burton in view of Bloom, Jr.)**

Claims 1-3, 5-11, 13-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Burton (U.S. Patent No. 5,769,596) in view of Bloom, Jr. (U.S. Patent No. 5,010,962). Specifically the Examiner states the following on page 3 lines 8-9 of the office action:

It would have been obvious to substitute an hydraulic cylinder for the actuator in Burton in view of the teaching in Bloom (element 60).

As discussed above Burton is devoid of any discussion pertaining to an implement coupler having the previously discussed center box section. Like Burton, Bloom is also devoid of any discussion of the aforementioned subject

matter. Therefore, the proposed Burton/Bloom combination does not arrive at the invention set forth in the rejected claims. Accordingly, a proper prima facie case of obviousness has not been established and Applicants respectfully request that the subject rejection be withdrawn.

**35 U.S.C. § 103(a) Rejection of Claims 1-3, 5-11, 13-18 and 20 (Kim in view of Burton)**

Claims 1-3, 5-11, 13-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim (U.S. Patent No. 5,865,594) in view of Burton (U.S. Patent No. 5,769,596). Specifically the Examiner states the following on page 3 lines 8-9 of the office action the:

It would have been obvious to lengthen the pins in Kim to provide visual checks from the cab in view of the teaching in Burton.

The Examiner further states the following on page 3, lines 14 and 15, of the office action:

In Kim 20 and 6 are synonymous with applicants' rear box and center box, respectively.

Discussion Re: Patentability of Claim 1

Claim 1 reads as follows:

1. A method of verifying proper coupling of an implement assembly to a lift arm assembly by an operator who is located in a cab of a work machine, with (i) the work machine including the implement assembly and the lift arm assembly, (ii) the implement assembly including a hinge plate, (iii) the hinge plate having a first coupling aperture extending therethrough, (iv) the lift arm assembly having a lift arm and a cylinder, and (v) the cylinder being secured to the lift arm, comprising the steps of:

**providing an implement coupler having (i) a first outside support plate, (ii) a second outside support**



plate spaced apart from the first outside support plate, (iii) a first inside support plate interposed the first and second outside support plates, (iv) a second inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, and (vi) a rear box section interposed the first and second outside support plates;

positioning the cylinder within the rear box section;

advancing a hydraulic fluid into the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin extends through the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab whereby proper coupling of the implement assembly to the lift arm assembly is verified by the operator without having to exit the cab. (Emphasis added.)

The Examiner Appreciates that claim 1 includes a **rear box section** interposed the first and second outside support plates.

Applicants respectfully point out that the Examiner's assertion that element 20 of Kim is synonymous with Applicants' rear box section is also incorrect. As previously stated, Applicants understand that one may not read a limitation into a claim from the written description, but one may look to the written description to define a term already in a claim, for a claim must be read in view of the specification of which it is a part. As clearly shown in FIG. 13 of the Applicants' patent application, rear box section 480 is a container having a **generally rectangular shape**, hence the word "box" was used in the term "rear **box** section" to call out this element of the Applicants' invention. Furthermore, Applicants respectfully direct the Examiner's attention to the definition of the term "box" as set forth on page 44 of the Dictionary of Mechanical Engineering, Fourth Edition, :

**box** (a) A portion of a mechanism **resembling a box** such as a valve box. (Emphasis added: Note that page 44 of the Dictionary of Mechanical Engineering, Fourth Edition, is attached hereto as Appendix B.)

Moreover, the Applicants respectfully direct the Examiner's attention to the following definitions of the word "box":

**box**<sup>1</sup> (bɒks) *n.* 1. A usu. **rectangular container**, typically having a lid. (See Webster's II New Riverside Dictionary Revised Edition, p. 86, which is attached hereto as Appendix C: Emphasis added.)

**box** (CONTAINER)/BAKS/*noun* [C]  
a container with stiff sides, **shaped like a rectangle**, or the contents of such a container (See Cambridge International Dictionary of English. Note that the page setting forth the definition of box is attached hereto as Appendix D: Emphasis added.)

<sup>2</sup>**box**  
1: a rigid **typically rectangular container** with or without a cover <a cigar box>: as **a**: an open cargo container of a vehicle **b**: (See Merriam-Webster's Collegiate Dictionary. Note that the page setting forth the definition of box is attached hereto as Appendix E: Emphasis added.)

In light of the above discussion the Examiner will appreciate that the term "rear box section" recited in claim 1 refers to a structure which is a container having a generally rectangular shape.

Element 20 of Kim is not synonymous with Applicants' rear box section. In fact, element 20 of Kim is not a box section at all. Kim refers to element 20 as an intermediate member 20 which is integrally fixed to one side of housing (A) (see column 7, lines 1-2). As clearly shown in FIG. 9 of Kim, intermediate member 20 is a ring shaped structure which in no way resembles the generally rectangular shaped rear box section 480 (see FIG. 13 of Applicants' patent application) recited in Applicants' claim 1. As such, Kim's intermediate member 20 is not synonymous with Applicants' rear box

section 480. Moreover, Kim is devoid of any discussion relating to a structure which is synonymous with rear box section 480.

The deficiencies of Burton were discussed above. Therefore, since Burton does not teach or suggest a center box section and Kim does not teach or suggest a rear box section the proposed Kim/Burton combination does not arrive at the invention of claim 1 which includes both a center box section and a rear box section. In addition, the proposed Kim/Burton combination does not arrive at the invention of any of the above rejected claims, all of which include both a center box section and a rear box section. Accordingly, a prima facie case of obviousness has not been established and the Applicants respectfully request that the rejection of the aforementioned claims be withdrawn.

**Conclusion**

In view of the foregoing remarks, it is submitted that this application is in condition for allowance. Action to that end is hereby solicited.

Respectfully submitted,



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